ABSTRACT

A qualifying connection for an instrument attaches to a source of electrosurgery energy and to the instrument and has first and second parts coupled to the instrument and the source, respectively. Optical couplings on the connection transmit invisible energy to identify the instrument and are proximate on the first and second parts. A light modifier on the first part is proximal to the second part for modification of radiation in the infrared wavelengths so infrared transmitters encode signals and non-contact coded proximity detectors on the second part are the coupled detectors. Mechanical attachments include conjugating male and female portions which physically extend between the parts and matingly engage. An identifying circuit couples to the second part and responds to invisible light optically communicated across the couplings for verifying the type of instrument connected by the cable to the source. A method of using the connection has steps including juxtaposing and conjugating the parts with attachments and couplings for transmitting invisible optical energy to identify the instrument. The method includes modifying the invisible optical energy with geographically disposed proximate couplings of the parts when the attachments engage and the couplings are proximate. Passing and assessing signals of the modified energy are transmitted through the connection and to an identifying circuit in the source.